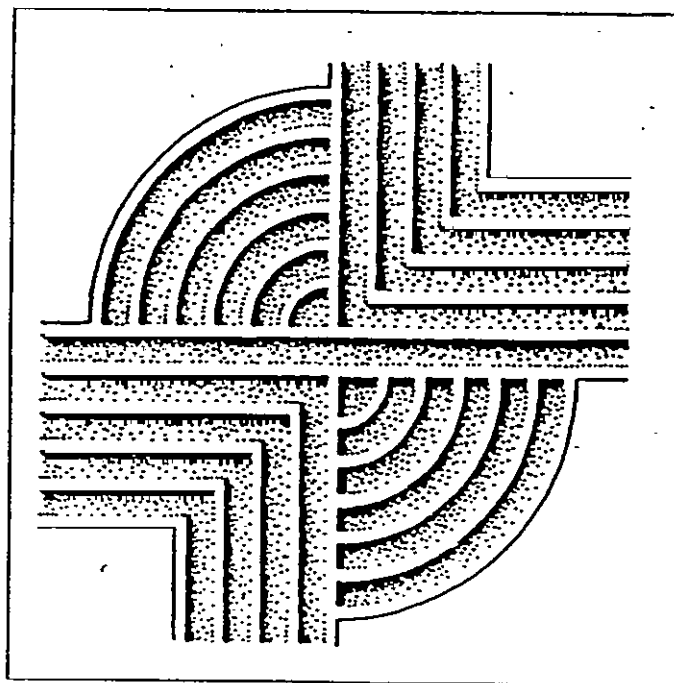


MANAGEMENT SUMMARY OF AN ARCHAEOLOGICAL SURVEY OF THE CALLAWASSIE ISLAND PHASE 1 DEVELOPMENT, SPRING ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA



RESEARCH CONTRIBUTION 46

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CALLAWASSIE ISLAND PHASE 1 DEVELOPMENT, SPRING ISLAND,
BEAUFORT COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 46

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Introduction

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Glen McCaskey, consultant to the developer of the approximately 850 acre Callawassie Island property (Callawassie Development Corporation). Callawassie Island is bordered to the north by the Chechessee Creek, to the east by a tributary of the Chechessee Creek and the Callawassie Creek, to the south and west by the Colleton River. The island is separated from neighboring Spring Island by the Callawassie Creek, which runs north-south. The Broad River lies to the east of Spring Island (Figure 1).

Both Callawassie and Spring islands are currently owned and being developed by the same interest, the Callawassie Development Corporation. The current Phase 1 development on Callawassie Island, which is situated on the eastern shore of the island, will involve a series of nine fairways for the expansion of the existing 18 hole golf course on Callawassie. These fairways vary from 700 to 1800 feet in length and average about 150 feet in width at the tee to 300 feet in width at the green. The survey tract includes the nine fairways, five located entirely on the island's interior and four located either entirely or partially along the southeastern marsh edge of the island. All of these new fairways are located on a previously undeveloped area of the island. Also included in this tract will be a series of access roads and associated utilities, house lots, and golf course maintenance facilities, although these are not included in this present survey. This initial development, anticipated to begin in the fall of 1990, will involve construction of the fairways, with other aspects of development not immediately planned.

The proposed work will involve the clearing, grubbing, filling, and grading of the fairways. The 19th fairway has been previously cleared and grubbed, as has about half of the 27th fairway. These activities will result in considerable land alteration with potential damage to archaeological and historical resources which may exist in the project area.

This summary is intended to provide a synopsis of the preliminary archaeological survey of the Phase 1 tract; it is not intended to be a final report. The results of this work, and recommendations for additional work will be more fully discussed in the final report.

Based on discussions with the developer's consultant and the Staff Archaeologist with the State Historic Preservation Office at the South Carolina Department of Archives and History, it was



Figure 1. A portion of the Spring Island USGS map showing the project location.

determined that archaeological investigations would be necessary at all of the previously undeveloped areas of Callawassie Island. This current study, however, involves only the golf course area. The remainder of the undeveloped areas on Callawassie Island will be incorporated into an intensive survey to be conducted in late June and early July. An agreement between Chicora Foundation and the developer for the island-wide survey was signed on May 14, 1990.

The archival research proposed for this island-wide survey is currently being conducted, but is not yet available. However, none of the sites identified in the fairway study date from the historic period. Field work on the fairways was conducted by Ms. Mona Grunden, Mr. Bernie Slaughter, and the author on May 15, 1990 and May 21 through May 25, 1990. This work required a total of 104 person hours.

Arrangements have been made to curate the collections from these investigations at The Environmental and Historical Museum of Hilton Head Island, although no Accession Number has yet been assigned. Cataloging will be conducted to the facilities standards at the completion of the island-wide survey. All field records will be provided to the institution on pH neutral, alkaline buffered paper and the photographic materials will be processed to archival permanence. Additional information on the processing and conservation of the artifacts may be found in a subsequent section of this management summary.

Effective Environment

Beaufort County is situated in the Lower Coastal Plain of South Carolina and is bounded to the south and southwest by the Atlantic Ocean, to the east by St. Helena Sound, to the north and northeast by the Combahee River, to the west by Jasper and Colleton counties and portions of the New and Broad rivers. The mainland primarily consists of nearly level lowlands and low ridges. Elevations range from about sea level to slightly over 100 feet above mean sea level (MSL) (Mathews et al. 1980:134-135).

The county is drained by four primarily coastal or saltwater river systems (the May, New, Broad-Pocotaligo-Coosawhatchie, and Broad rivers) and one river with a significant freshwater discharge (the Combahee River), which plays a significant role in historic rice cultivation. Because of the low topography, however, many low gradient interior drainages are present as either extensions of tidal streams and rivers or flooded bays and swales. There are many diverse wetland communities influenced by tidal inundation and river flow. Upland vegetation is primarily pine or mixed hardwoods and pine, and only 15% of the county is currently cultivated (while about 5% of the total land area is urbanized) (Mathews et al. 1980:135).

The geology of the county is characteristic of the coastal

plain, with unconsolidated water-laid beds of sands and clays up to 20 feet in thickness overlying thick beds of soft marl (Stuck 1980:3). Callawassie Island consists of primarily the Coosaw-Williman-Ridgeland and Bohicket-Capers-Handsboro soil associations which range from somewhat poorly drained to very poorly drained soils that are primarily sandy. Within the Phase 1 survey area three series are present: Bladen, Coosaw, and Eulonia (Stuck 1980:Map 75). None of these soils are classified as either moderately well drained to well drained; all are somewhat poorly drained to poorly drained. Topography, however, does vary considerably in the project area and the field investigations, therefore, tended to emphasize the higher elevations (over 12 to 13 feet MSL), as well as those areas immediately adjacent to the marsh.

On the Callawassie Island Phase 1 tract the elevations range from 5 to 19 feet with a bank about 8 to 12 feet high adjacent to the Callawassie Creek marsh. Vegetation includes forests of live oak, pine, hickory, and sweet gum dominating the area, although fields of second growth pine are also present. Only on the two cleared fairways was ground visibility greater than 50% and typically visibility ranged from 0 to 10%.

Background Research

Although currently in progress, no historical or archival research was conducted prior to this project phase. The previous work by Michie (1982) provides some preliminary background for the island. Review of this document and the published plats, however, reveals no documented historic period occupation in the Phase 1 survey area. Summaries of Beaufort area history are presented by Dabbs (1983), Johnson (1969), Trinkley (1986, 1987, 1988, and 1989), and Woofter (1930), while sources such as Pearson (1906) provide additional primary source documentation for the area. McGuire (1984) provides a detailed account of land ownership in the postbellum period. These sources should be consulted for additional information general to the Beaufort District.

Spring Island has been previously surveyed at a reconnaissance level by Michie 1982, although this report has not been accepted by the State Historic Preservation Office to satisfy compliance requirements of the development. Michie did identify a series of 11 sites in the general area of the Phase 1 development and a Middle Woodland burial mound has been previously identified in this area (Brooks et al. 1982). Of these 12 sites, three have been relocated and found to be within the immediate area of the proposed fairways. Two other sites could not be relocated and are assumed to have been destroyed by erosion and natural actions.

With the assistance of Mr. Keith Derting, South Carolina Institute of Archaeology and Anthropology, we have submitted revised site forms

Field Methods

The initially proposed field techniques (discussed with Dr. Patricia Cridlebaugh, Staff Archaeologist with the South Carolina State Historic Preservation Office) involved the placement of shovel tests at 100 foot intervals along transects at 200 foot intervals through the island-wide study areas which exhibited well drained soils, with all fill being screened through 1/4-inch mesh. If evidence of an archaeological site was identified, the testing interval would be decreased to 50 feet in order to more accurately establish boundaries. In addition, Chicora would relocate those sites previously identified by Michie. At all sites, including those previously identified, Chicora would establish site boundaries, collect sufficient information to complete or revise site forms, and would assess and justify site eligibility for inclusion on the National Register of Historic Places. This emphasis on shovel testing is required by the tract's extensive woods coverage, which was anticipated to severely restrict surface visibility.

All soil would be screened through 1/4-inch mesh, with each test numbered sequentially. Each shovel test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot. All cultural remains would be collected, except for shell, mortar, and brick, which would be qualitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

In addition, Chicora was to relocate and assess all previously identified sites within the survey boundaries (sites on developed portions of the island were not incorporated into this study). These sites would also be subjected to shovel testing in order to determine site integrity, site boundaries, and assist in collecting temporally diagnostic materials.

These plans, however, were altered in order to provide Callawassie Development Corporation with immediate information on the nature of the archaeological remains present in the immediate vicinity of the fairways. Each fairway had been surveyed and staked in the field. These centerline stakes has been placed at 100 foot intervals and the developer was able to provide Chicora with a detailed topographic survey at a scale of one inch to 200 feet. The interior, wooded fairways were surveyed by conducting shovel tests along the centerline at 50 foot intervals. Additional tests were placed at 25 feet intervals to more accurately define site boundaries. Cleared fairways were surveyed using visual inspection coupled with random shovel testing to examine for site depth and stratigraphic profiles. The four fairways adjacent to the marsh were not only shovel tested along the centerlines, but were also examined by walking the bluff edge. In addition, there is a dirt road running parallel to and about 25 feet inland from the marsh which provided additional surface visibility.

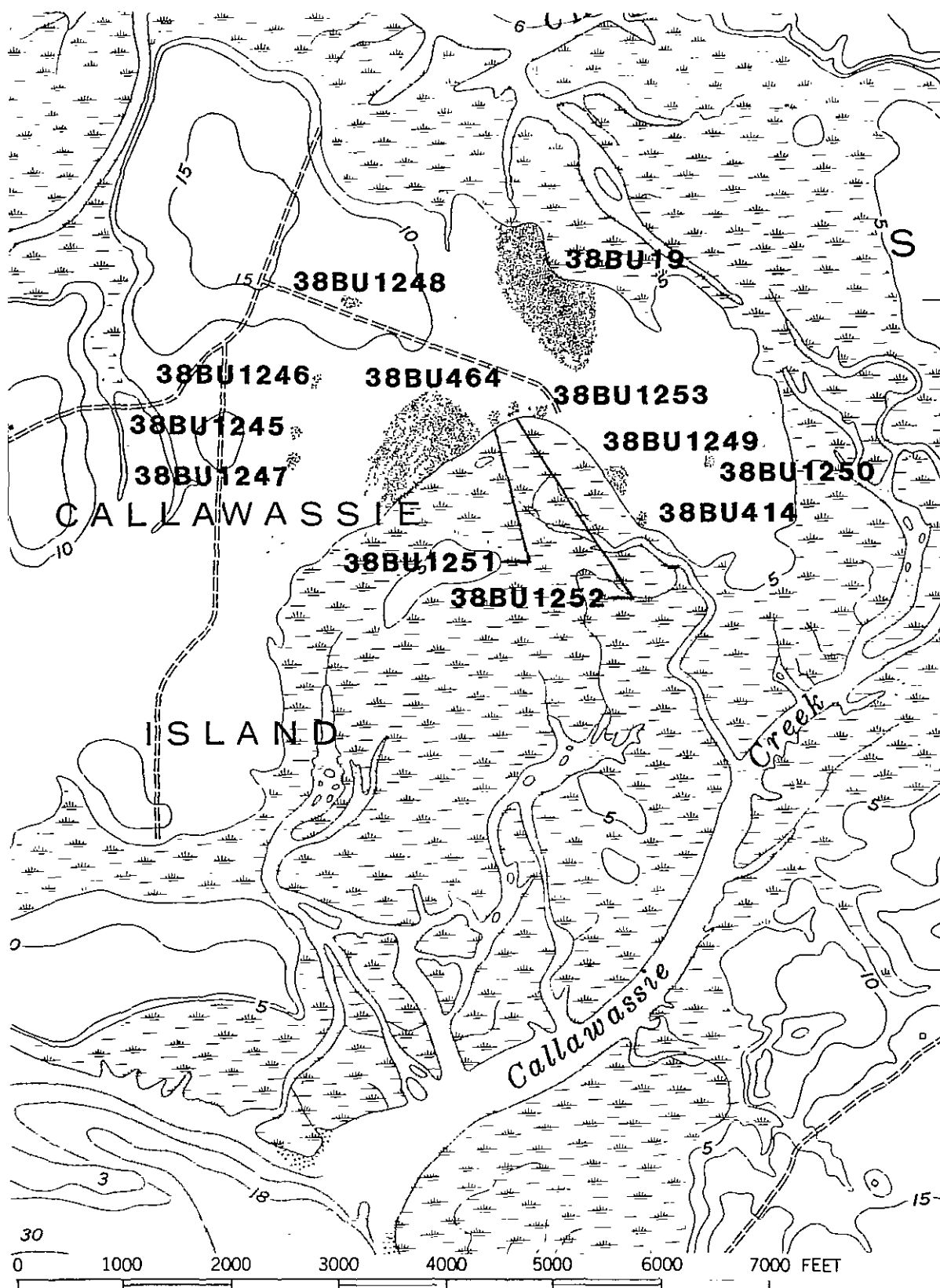


Figure 2. Phase 1 development tract and identified archaeological sites.

A total of 267 shovel tests were excavated in the vicinity of the various fairways, with an additional 36 shovel tests excavated in the vicinity of the mound site (38BU19). Surface collections were made from several of the sites, although generally ground visibility was too limited to make this approach a valid technique for boundary or artifact quantity studies. The surface materials, all from selective grab collections, are only able to provide some additional information on temporal periods.

Laboratory Analysis

The cleaning of artifacts was conducted in the field laboratory, with subsequent analysis at the Chicora Foundation laboratory in Columbia. As previously discussed, these materials will be cataloged and accessioned once the island-wide survey has been completed, although The Environmental and Historical Museum of Hilton Head Island has accepted the collections for curation. All artifacts currently collected have been examined and found to be stable, requiring no conservation treatments. Site forms have been filed with the South Carolina Institute of Archaeology and Anthropology, with copies provided to the State Historic Preservation Office. Field notes and photographic materials have been prepared for curation using archival standards and will be transferred to The Environmental and Historical Museum of Hilton Head Island as soon as the island-wide project is complete.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric ceramics were classified using common coastal South Carolina types (DePratter 1979; Trinkley 1983).

Results

These investigations identified a total of 12 archaeological sites on the Phase 1 development tract. Nine of these represent sites not previously identified by Michie (1982), while the remainder represent loci previously identified. One site previously identified by Michie as within the fairway construction area (38BU415) could not be relocated and is assumed to have been destroyed by erosion.

Site 38BU19, also known as the Callawassie Island Burial Mound, is situated on the northeast edge of the island. The central UTM coordinates of the site are E514540 N357720 and the site is found on Bladen soils at elevations ranging from 8 to 16 feet MSL. Site dimensions, based on a series of 36 shovel tests excavated at 20 to 50 foot intervals on a series of seven transects, are 1400 feet north-south by 600 feet east-west. The site incorporates a Middle to Late Woodland (St. Catherines phase) burial mound which has been tested by the South Carolina Institute of Archaeology and Anthropology (Brooks et al. 1982) and a large village/midden area

around the mound which had not been previously identified. The southern edge of the site will be impacted by the construction of Fairway 22, although the bulk of the site is in an area slated for residential construction (which includes the potential for damage through road and utility construction, house construction, and landscaping).

Ceramics recovered from this site include one Thom's Creek sherd (0.8%), 17 Deptford sherds (14.8%), two Mount Pleasant sherds (1.7%), 48 St. Catherines sherds (41.7%), 13 Savannah sherds (11.3%), one Irene sherd (0.8%), one Altamaha sherd (0.8%), four Catawba sherds (3.5%), and 28 unidentifiable sherds (24.3%). Also recovered were two chert flakes and one worked whelk. This assemblage reflects occupation from about 1800 B.C. through the protohistoric periods, although the major occupation appears to be during the St. Catherines phase, about A.D. 1000.

This site is recommended as eligible for inclusion on the National Register of Historic Places and a national level of significance. The mound provides exceptional evidence of prehistoric mortuary patterns and the skeletal remains are useful for population and dietary studies. The surrounding village has the potential for providing equally important information on seasonality, settlement, and lifeways reconstructions. The total site complex is well preserved, exhibiting excellent site integrity. While development impacts to this site can be mitigated through data recovery, green spacing is the preferred alternative, particularly for the mound itself.

Site 38BU414 was originally recorded in 1982 by James Michie. It was reported to be a small shell midden on the bluff overlooking the Callawassie Creek marshes. Michie reported that the site was contained "within the root system of an eroding live oak tree" and that the site was "4-5 feet across" (38BU414 site form, South Carolina Institute of Archaeology and Anthropology). No materials were recovered from the site during Michie's survey. More recent investigations have relocated the site, finding that the shell midden extends over an area about 50 feet north-south and 150 feet east-west. The central UTM coordinates are E514800 N3576600. A series of 11 shovel tests at the site have revealed that there are several isolated shell middens scattered across the site and inland from the marsh edge. Apparently Michie identified one of these shell piles eroding from the bluff edge. The soils are Eulonia sands and the site is at an elevation of 10 feet MSL. This site is within Fairway 25.

Materials recovered include one Deptford sherd, one Mount Pleasant sherd, and one unidentifiable sherd. These remains suggest sparse occupation during the late Early Woodland and the Middle Woodland periods.

The site is recommended as not eligible for inclusion on the

National Register of Historic Places based on the degree of erosional disturbance, the low density of cultural remains, and the scarcity of midden deposits.

Site 38BU464 was also originally recorded by Michie in 1982. At that time Michie noted that the site, a shell midden up to a foot in depth, was situated in the interior of the island in a forest. The site was estimated to measure 50 by 80 feet and Michie recommended additional work at the site (38BU464 site form, South Carolina Institute of Archaeology and Anthropology). These current investigations have found that the site measures at least 700 by 650 feet (which suggests that Michie found only the portion of the site visible on the surface). Today about half of the site has either been cleared for the construction of Fairway 27 or has been damaged through the construction of roads and tennis courts.

The central UTM coordinates are E514200 N3576800. Soils are classified as Eulonia sands and the elevation is about 14 feet MSL. The site is found on a sandy ridge overlooking the Callawassie Creek marsh. A series of 44 shovel tests have identified a series of discrete middens exhibiting integrity in the forested area on the east half of the site. Materials recovered two Stallings sherds (4%), eight Deptford sherds (16%), one Mount Pleasant sherd (2%), 21 St. Catherine's sherds (42%), one Altamaha sherd (2%), one Catawba sherd (2%), and 14 unidentifiable sherds (28%). While the site was occupied from about 2000 B.C. through A.D. 1600, it appears that the most intensive settlement occurred during the Middle Woodland St. Catherine's phase, about A.D. 1000.

This site is recommended as eligible for inclusion on the National Register of Historic Places, in spite of the damage caused by development construction and the clearing and grubbing associated with the golf course. The eastern half of the site exhibits intact middens and is capable of contributing information to settlement and subsistence questions surrounding the Middle Woodland. This site, in close proximity to 38BU19, may also provide information on the nature of the burial mound. Appropriate mitigation may include either green spacing or data recovery. If data recovery is selected, it should be confined to the eastern half of the site.

Site 38BU1245 is situated on the interior of the island; the central UTM coordinates are E513820 N3576840. This site consists of a thin scatter of shell in an area previously cleared for the construction of Fairway 19. More recently the site area has been extensively plowed and planted in rye. The soils are the Coosaw series and the site is situated on a sandy ridge adjacent to an fresh water slough. Site dimensions, based on a series of five shovel tests and surface collections, are estimated to be 100 feet north-south by 50 feet east-west, although the extent of disturbance may boundary determinations difficult. This site may actually be much smaller than plotted, with the shell dispersed by

clearing and plowing. Materials collected include one Stallings Plain sherd, one Deptford sherd with an unidentifiable surface treatment, one Savannah Complicated Stamped sherd, one Catawba Plain sherd, and one chert flake.

This site is recommended as not eligible for inclusion in the National Register based on the extensive damage and absence of clear site integrity.

Site 38BU1246 is situated in the same cleared fairway as 38BU1245 and exhibits the same degree of disturbance. The soils are Coosaw sands and the site, on a sandy ridge overlooking a low area, is at an elevation of 13 feet MSL. The central UTM coordinates are E513860 N3577040. Site boundaries, based primarily on the dispersion of shell midden, are 150 feet north-south by 50 feet east-west. A series of three shovel tests were excavated at this site to determine if evidence of intact soil profiles could be identified -- each test indicated through mixing to a depth of at least 1.0 foot and no intact midden areas could be identified. Materials recovered include two Stallings Plain sherds, one Deptford Plain sherd, and three unidentifiable sherds.

This site is recommended as not eligible for inclusion on the National Register of Historic Places based on the extensive clearing and grubbing, and subsequent plowing. No evidence of intact middens was found and the site exhibits a low degree of integrity.

Site 38BU1247 is also situated in the cleared and grubbed area of Fairway 19. A thin shell scattered was encountered on a sandy rise overlooking a interior slough with the site at an elevation of 10 feet MSL. The soils are the poorly drained Coosaw series and the central UTM coordinates of the site are E513830 N3576730. Two shovel tests were excavated to examine the soil stratigraphy. The disturbance at this site is identical to that observed at 38BU1245 and 38BU1246. Site boundaries are estimated at 300 feet north-south by 75 feet east-west. Material recovered include one Stallings Plain sherd, one St. Catherine's Plain sherd, and three unidentifiable sherds.

This site is recommended as not eligible for inclusion on the National Register. No evidence of site integrity could be identified and surface indications of the site were very sparse.

Site 38BU1248 is situated on a sandy rise at an elevation of 12 to 15 feet overlooking two interior depressions. The soils in the site area are Coosaw sands and the central UTM coordinates are E5139760 N3577220. The site, within Fairway 21, is vegetated in second growth pine and furrows are still visible on the forest floor. A series of 15 shovel tests were placed in the site area, providing boundaries of 25 feet north-south by 300 feet east-west. These tests, however, revealed a very sparse distribution of

material and evidence of heavy plowing. Materials recovered include one Deptford Plain sherd, one Deptford Cord Marked sherd, and one St. Catherines Cord Marked sherd.

This site is recommended as not eligible for inclusion on the National Register of Historic Places based on the scarcity of remains, evidence of extensive plowing, and lack of intact midden areas. No further investigations are recommended at this site.

Site 38BU1249 is situated on Fairway 25, about 200 feet northwest of 38BU414. The site area is in a maritime forest with only minimal exposure along the Callawassie Creek shore. The soils in the site area are Eulonia sands and the site elevation is 5 to 12 feet MSL. The central UTM coordinates are E514720 N3576720. A series of 18 shovel tests were excavated, revealing site boundaries of 175 feet north-south by 200 feet east-west. The midden at this site is unusual in that it is largely composed of periwinkle. Materials recovered include four Deptford sherds and two unidentifiable sherds.

Site integrity is high and there is no evidence of site disturbances. The presence of a late Early Woodland periwinkle midden is unusual and deserves more careful investigation. This site is recommended as eligible for inclusion on the National Register of Historic Places. Mitigation of development impacts may include either data recovery or green spacing.

Site 38BU1250 is an interior site situated adjacent to a fresh water wetland within Fairway 24. This shell midden is found on a sandy ridge at an elevation of 11 feet MSL. The soils in this area are Bladen sands. The central UTM coordinates are E514950 N3576650. The site has been damaged by a bulldozer cut, perhaps for a survey line or a temporary road. Two shovel tests placed in the area of densest surface shell revealed midden to a depth of about 0.5 foot, although there was also evidence of recent disturbance. No materials were found during either the surface survey or the limited shovel testing.

This site is recommended as not eligible for inclusion on the National Register of Historic Places based on the extensive disturbance. No additional work is recommended at this site.

Site 38BU1251 is a very small, isolated shell midden situated adjacent to the marshes of Callawassie Creek on Eulonia soils at an elevation of 12 feet MSL. The site is within Fairway 26. Shell was observed both on the surface and in a series of eight shovel tests. Central UTM coordinates are E514400 N3576900. The site area is in a maritime forest of live oak and palmetto. Site boundaries, based on the shovel tests and the surface scatter of shell in the roadway adjacent to the marsh, is estimated to be 50 by 50 feet. No artifacts were recovered from this midden.

The site is recommended as not eligible for inclusion on the National Register, based on the lack of cultural remains and the absence of clear site integrity.

Site 38BU1252 is situated about 100 feet east of 38BU1251 and is also within Fairway 26. The central UTM coordinates are E514440 N3576930 and the site elevation is 10 feet MSL. This small shell midden is found on Eulonia soils overlooking the Callawassie Creek marsh. Vegetation in the area includes primarily live oak, palmetto, and cedar with a dense understory. A series of six shovel tests revealed light midden up to 0.5 foot in depth. The site is estimated to cover an area 50 feet north-south by 100 feet east-west. A single Thom's Creek Plain sherd was recovered.

This site is recommended as not eligible for inclusion on the National Register based on the limited degree of site integrity and the sparse artifact content. Adequate mitigation has been achieved through recordation of the site location.

Site 38BU1253 is situated about 50 feet east of 38BU1252 on a sandy ridge of Eulonia soils paralleling Callawassie Creek. The site elevation is 11 feet MSL and the central UTM coordinates are E513530 N3576890. This midden was found within Fairway 26. Site boundaries, based on the excavation of eight shovel tests and the scatter of shell in the road bisecting the site, are 50 feet north-south by 75 feet east-west. No diagnostic remains were found in the shovel tests.

Sites 38BU1251, 38BU1252, and 38BU1253 are all discrete shell piles, although because of their proximity they may be related. Regardless, 38BU1253 is recommended as not eligible for inclusion on the National Register. The site failed to exhibit clear integrity and no cultural remains were identified either in the testing or in surface collections.

Summary and Recommendations

As a result of the intensive archaeological survey of the fairway areas designated the Phase 1 development tract on Callawassie Island, 12 archaeological sites were defined. Three of these sites had been previously identified, although this current study has resulted in major revisions of site boundaries and reassessments of site integrity and significance. A total of three archaeological sites are recommended as eligible for inclusion on the National Register of Historic Places. These three sites include 38BU19 (a Middle Woodland burial mound and associated village area), 38BU464 (a late Early through Middle Woodland shell midden complex), and 38BU1249 (a relatively small late Early Woodland shell midden characterized by periwinkle shells).

Discussions with Mr. Glen McCaskey suggest that at least one of these sites, 38BU1249, may be suitable for green spacing by

incorporation into the fairway. One site, 38BU19, will probably have the mound green spaced and the surrounding village area subjected to data recovery. Data recovery should involve extensive excavations to not only recover subsistence remains and diagnostic materials, but also to expose potential village settlement patterns. The remaining site, 38BU464, covers a large area of Fairway 27 and is of considerable concern. While some work seems essential at this site, we believe that intensive excavations may provide redundant data when compared to 38BU19. Consequently, we recommend a program of limited data recovery utilizing intensive auger testing to determine midden and artifact densities. Based on this intensive auger test survey and computer density mapping, two site areas (reflecting the highest density and integrity) should be subjected to either green spacing or data recovery. This approach provides the developer with the potential for green spacing those site areas of greatest scientific value, while continuing with the project development.

Green spacing is recognized as an appropriate, and often cost-effective mitigation measure for archaeological site conservation. Such green spacing, however, must ensure the permanent protection and integrity of the archaeological data. Six recommendations are offered if green spacing is to be considered. These provisions, however, are subject to the review and approval of the State Historic Preservation Office.

1. All site areas are to be blocked out in the field with a buffer sufficient to ensure complete protection of the remains.
2. All clearing within the areas must be conducted by hand. No heavy equipment may be used and all cut vegetation should be removed from the site area.
3. The areas must continue to be clearly defined during all phases of construction. No equipment will be allowed in these areas, or be allowed to use the areas as turn-arounds. The areas will not be used to stockpile supplies or be otherwise disturbed. All personnel, including contractor's personnel, should be strictly forbidden from entering the areas.
4. Any landscaping in the areas will be conducted by hand and ground disturbance must be limited to the upper 0.2 foot of soil. No utilities, including sprinkler lines or shallow electrical cables will be placed through the areas.
5. Callawassie Development Corporation must develop a historic easement or protective covenant protecting those areas set aside in green spacing and this protection must be in perpetuity.

6. Appropriate security must be provided to ensure that no one digs or otherwise disturbs the various sites.

Recommendations regarding data recovery have been discussed above. Any data recovery at the sites will require a detailed mitigation plan to be submitted to the State Historic Preservation Office for their review and approval. It is likely that artifacts will be uncommon in the middens themselves. The major thrust of the data recovery within the middens should be the collection of shellfish remains from contexts suitable for specialized analysis. Such work should include investigation of seasonality, habitat reconstruction, evidence of selective pressures, and dietary contribution. It is essential that both midden and non-midden areas be equally investigated in order to balance subsistence data with settlement information. The non-midden areas are also more likely to produce temporally sensitive artifacts.

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